

PROCEEDINGS  
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DESCRIPTIONS OF NEW BERMUDIAN FISHES.

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The Bermuda Expedition of the Field Museum of Natural History in 1905 obtained about 165 species of fishes of which the following appear to be undescribed :

***Iridio meyeri.***

The type of the species is 4 inches long to caudal base. Collector's number 1101; Field Museum catalogue number 5496; locality, Nonsuch Id. Named for Capt. W. E. Meyer, of St. George's.

D. IX, 11; A. III, 11; scales, 3-27-9.

Head  $3\frac{1}{2}$  in total without caudal; depth about 4; eye 5 and snout  $3\frac{1}{2}$  in head. Anterior profile of head strongly convex, mouth on level with lower axil of pectoral. Opercular flap broad, its width and length equal,  $4\frac{1}{2}$  in head. Two canines in the front of each jaw projecting almost straight forward.

Four rows of scales in front of dorsal, not meeting on median line; scales on nape rudimentary. Lateral line begins in fifth vertical row of scales, curves upward to third row under eighth ray of soft dorsal, thence sharply down to median line, its straight portion piercing 6 scales. Anal base as long as head. Pectoral reaches to eighth scale of lateral line, not quite to vent. Ventral equal to post-orbital part of head.

Body in spirits: Dusky above, pale below. A brown band from snout continued behind eye to caudal; an obscure, narrow, interrupted band below this. A dark blotch on membrane between fifth and sixth dorsal spines and one between sixth and seventh. A minute dark spot at base of last dorsal ray. A small dark blotch on upper axil of pectoral. A narrow dusky bar across interorbital space and two similar bands on nape. A narrow white streak from angle of mouth to upper axil of pectoral; a second whitish streak from mandibular articulation across preopercle and subopercle. Eleven narrow, interrupted, oblique, whitish streaks on pectoral region extending back past anal origin.

***Iridio decoratus.***

Two type specimens. Collector's number 545; Museum catalogue number 5128; locality, Nonsuch Id., October 4, 1905.

D. IX, 11; A. III, 12; scales, 2-27-7.

Eye equal to snout, 4 in head; head  $3\frac{1}{2}$  in total to end of scales; depth  $4\frac{1}{2}$ . The pectoral reaches to eighth row of scales; ventral about one-half head, not reaching nearly to vent.

Color in spirits: Brownish above middle line, paler below; a short dark stripe on snout in front of eye; a narrow dark line from eye backward to nape; a second irregular line also from eye below this, and a third broken line beginning behind eye and running toward origin of lateral line; a small black dot in upper axil of pectoral.

#### **Iridio elegans.**

Four type specimens. Collector's numbers 703, 762, 767; Museum catalogue numbers 5129, 5130, 5131. Castle Harbor at Nonsuch Id. and Cooper's Id.

D. IX, 11; A. III, 12; scales,  $2\frac{1}{2}$ -26-9.

Eye  $1\frac{1}{2}$  in snout, 4 in head. Head  $3\frac{1}{2}$  in total to end of scales. Depth equal to head. Pectoral extends to tenth scale of transverse series; ventral  $\frac{1}{2}$  head, not quite reaching vent.

Colors in spirits: A narrow blue line from angle of mouth to edge of subopercle; a wavy blue line starts near angle of mouth, runs under eye and gently down toward upper axil of pectoral; spots and broken lines of blue behind eye and on nape; five pale bars from edge of back downward toward median line; a large, diffuse black blotch on anterior half of soft dorsal extending downward to lateral line; two smaller dark blotches under last four dorsal rays; an irregular dark blotch on root of caudal; three blue lines on body, the uppermost along lateral line, the others below median line; three short, oblique blue lines in pectoral region.

#### **Iridio microstomus.**

A small individual,  $1\frac{1}{2}$  inches to base of caudal. Collector's number 541; Museum catalogue number 5138; belongs to the same group with *I. meyeri*, having only two canines, projecting forward, in each jaw.

D. IX, 11; A. III, 11; scales, 3-27-9.

Mouth small, lips broad, covering the teeth. Maxilla scarcely reaching front of eye. Head  $3\frac{1}{2}$ , depth nearly 4 in total without caudal. Eye  $3\frac{1}{2}$  in head. Pectoral reaches to eighth scale of lateral line, ventral nearly as far, but not nearly to vent.

In spirits: A dark band from snout to eye and from eye to caudal; a small dark spot at base of last dorsal ray and in upper axil of pectoral; a narrow silvery streak limiting the lateral band above and meeting its fellow of the opposite side in a V shape on top of snout. Back pale lemon overlaid with dusky points; below lateral band pale lemon yellow, lower half of head and the abdominal region silvery; caudal tinged with orange and with an intense band of orange at base; iris dusky, overlying pink and silver.

#### **Labrisomus lentiginosus.**

Type  $4\frac{1}{2}$  inches without caudal. Collector's number 500; Museum catalogue number 5142; locality, tide pool at Doe's Rock, Paget Parish. October 26, 1905.

Head about 3, depth 4 in length to caudal. Pectoral reaches to vertical through anal origin; ventral  $\frac{1}{2}$  head; reaching scarcely more than half way to vent; eye equals snout;  $4\frac{1}{2}$  in head.

In spirits: Pale yellow, sides with four or five faint, irregular, dull gray cross bands; head profusely sprinkled with minute dark points; pectoral with six or seven narrow, interrupted bands formed by dots on the rays; caudal with six similar bands; no dark spot on front of spinous dorsal and none on opercle; soft dorsal and pale mottled with darker but without evident bands.

#### **Antennarius verrucosus.**

Type specimen,  $3\frac{3}{4}$  inches long without caudal. Collector's number 928; Museum catalogue number 4853; was taken in the Reach, St. George's Id., in 1904.

D. III, 12; A. 7; V. 6; P. 10.

First dorsal spine extends to base of third spine; "bait" absent; second spine free; third spine recumbent, adnate to skin of back. Second spine 3 in upper jaw; third spine twice as long as second. Body and fins everywhere rough with small prickles; many roundish raised clusters of spinules forming elevations on sides, back and belly in front of ventrals.

Upper jaw equals distance from pectoral to vent; eye 6 in upper jaw, 4 in interorbital space.

Color in spirits, pale yellowish; inside of mouth whitish; brownish dots and lines on head and body; four small, roundish, ocellated dark spots on soft dorsal; a diffuse dusky blotch on soft dorsal rays extending down on back enclosing a darker nucleus of irregular shape; caudal of left side with ten small irregular dark spots and a few smaller ones; an ocellated, oblong, dark spot on anal and several much smaller spots; about eight small dark spots at bases of pectoral rays; a dusky patch under each pectoral as long as upper jaw, its width one-third of its length; a smaller, diffuse blotch in front of vent.

#### **Holocentrus meeki.**

A small-scaled *Holocentrus* differing from *ascensionis* in its short dorsal and anal rays, small eye, equal caudal lobes and other characters. Types, collector's number 144, Museum catalogue number 5079, are  $2\frac{3}{4}$  inches and 3 inches long respectively, without caudal.

D. XI, 14 to 15; A. IV, 10; scales 4-54 to 55-7.

Head,  $3\frac{1}{2}$  in total without caudal; depth, 4; eye,  $3\frac{1}{2}$  in head; maxilla to vertical through front of eye; pectoral,  $\frac{3}{8}$  head, reaching sixteenth series of scales; ventral,  $\frac{2}{3}$  head, ending far from vent; anal base, 2 in head, equal to longest dorsal spine, and to longest soft ray; third anal spine 3 in head, longer and stouter than fourth.

In spirits, pale brown above lateral line, shining silvery below; all of head but top silvery; caudal peduncle purplish; membrane of spinous dorsal blackish; iris pale.

Named for Dr. Seth E. Meek, Assistant Curator of Zoology, Field Museum of Natural History.

**Cryptotomus crassiceps.**

Two specimens,  $3\frac{3}{4}$  inches and  $4\frac{3}{4}$  inches long to end of scales, collector's number 417, Museum catalogue number 4964; Cooper's Id., September 26, 1905.

D. IX, 10 to 11; A. II to III, 9; scales,  $1\frac{1}{2}$ -25-6.

No posterior canine tooth; in the smaller example about 12 teeth in front of upper jaw developed as canines, the two outer of which are hooked and recurved; side teeth coalesced into a cutting edge; in the larger examples there are fewer anterior canines and two of them project straight forward.

Scales on breast and belly notably enlarged; last scale of lateral line enlarged and produced backward into a point. Width of head  $\frac{1}{2}$  its length; snout pointed, subconical, 7 in total to end of scales; eye 2 in snout; mouth small, horizontal, its angle not reaching to front of eye; upper lip double, closely concealing the jaw. Three scales on median line in front of ventral; four across median line in front of dorsal.

Depth  $3\frac{3}{4}$  in total to end of scales; snout 3 in head. Pectoral more than  $\frac{1}{2}$  head, reaching eighth scale of lateral line; ventral equal to snout, not nearly reaching to vent; caudal short, sub-truncate, about 3 in head.

In spirits, grayish brown above, pale below; all fins pale except caudal which shows about 6 narrow, dusky cross bars in the smaller example; a black blotch at upper axil of pectoral and above it a faint blue line; isthmus dusky; two narrow blue lines from eye to angle of mouth; iris pale yellow, blackish at top, crossed obliquely by a blue line; dusky color on sides forming broken lines on 3 or 4 rows of scales below lateral line.

**Eupomacentrus chrysus.**

Type specimen  $1\frac{5}{8}$  inches long to end of scales, collector's number 525, Museum catalogue number 5025, from White's Flat Channel, October 6, 1905. This is almost uniform yellow, the only dark portions being the eye, a diffuse spot on the base of the spinous and soft dorsal covering five rows of scales, extending to lateral line, a dark saddle on top of caudal peduncle, a minute dark point on upper axil of pectoral, a faint dusky area on snout and nape, and about 21 very faint, narrow, dusky lines on sides, some extending above lateral line but none reaching far below edge of pectoral.

D. XII, 16; A. II, 15; scales, 3-28-11, pores on 18 scales.

Depth 2 in total to end of scales; head,  $3\frac{1}{4}$ ; eye,  $2\frac{1}{2}$  in head; interorbital space, 3 in head. Dorsal spines regularly graduated, the last about  $\frac{2}{3}$  head. Pectoral reaches to twelfth row of scales; ventral filamentous at tip and reaching anal origin.

**Hippocampus brunneus.**

Type, collector's number 1099, Museum catalogue number 5494, an adult male, taken at Long Bird Id., August 29, 1904.

D. 18, on 3+1 rings; rings 11+35.

Eye,  $2\frac{1}{2}$  in snout, 6 in head; head equal to body; depth about  $\frac{3}{4}$  head. Dorsal base equal to snout; longest dorsal ray 2 in snout.

Chocolate in spirits; a triangular whitish blotch immediately behind head, its greatest width 2 in snout; a larger whitish blotch, almost hour-glass shaped, on body, chiefly on sixth and seventh body rings, extending entirely around; eight narrow whitish bands across back, the first at the middle of dorsal base, none of these reaching below median line. Color notes on *H. hudsonius* in Bull. 47, U. S. N. M., 777, may relate to *H. brunneus*, but not to *H. hudsonius* DeKay.

#### **Monacanthus tuckeri.**

Type specimens, collector's numbers 100, 121, 376, Museum catalogue numbers 5183, 5184, 5186, taken at the Flatts, Well Bay, and Long Bay (Somerset).

D. 35; A. 34 to 36. In shape resembling young *Alutera*. Head 3 in total without caudal; depth at anal origin equal to head; least depth of caudal peduncle  $2\frac{1}{3}$  in snout; eye  $2\frac{1}{2}$  in snout, 3 in head. First dorsal spine nearly  $\frac{1}{4}$  total without caudal, with two rows of strong barbs; second dorsal spine as long as the eye.

Color in spirits, dark brown; an irregular white pseudo-band on under surface of head extending on body to over middle of anal base; in the largest example this marking resembles hieroglyphics; four narrow, dark bands on first dorsal spine and four on caudal fin.

Dedicated to the venerable George Tucker, M. A., archdeacon of Bermuda, for his devotion to biological science in the colony.

